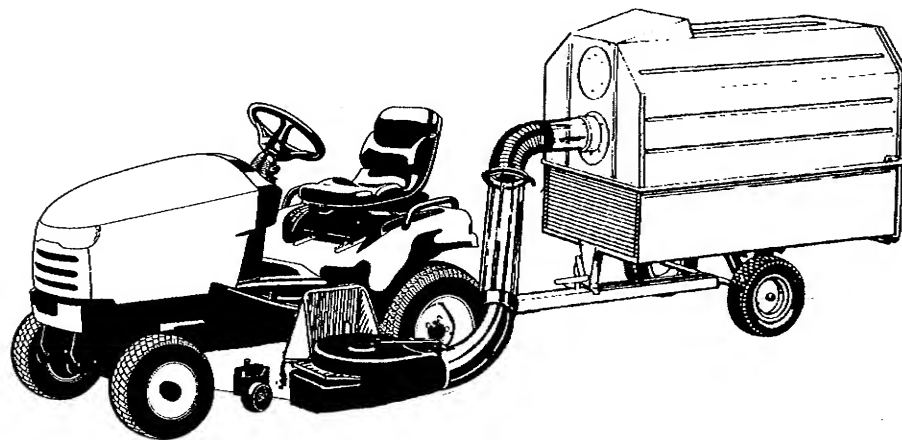


OPERATOR'S MANUAL



Large Capacity Dump Cart Hose, Hitch, & Tube

Large Capacity Dump Cart Hose, Hitch, & Tube

Mfg. No.	Description
1692929	Hose, Hitch, & Tube for 60" Legacy Series Mowers
1692930	Hose, Hitch, & Tube for 48" Legacy Series Mowers

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NOTE: In these instructions, "left" and "right" are referred to as seen from the operating position.

Recommended Accessories

For operation on slopes greater than 15% (8.5°), wheel weights are recommended. Never operate on slopes greater than 30% (16.7°).

Safety Rules & Decals

SAFETY RULES



Read these safety rules, and the safety rules in your tractor Operator's Manual, and follow them closely. Failure to obey these rules could result in loss of control of vehicle, severe personal injury to yourself, or damage to property or equipment. **THE TRIANGLE ⚠ IN THE TEXT SIGNIFIES IMPORTANT CAUTIONS OR WARNINGS WHICH MUST BE FOLLOWED.**



WARNING

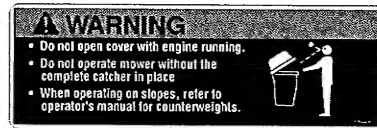
- When blower assembly is removed from the mower deck, the deflector must be properly installed.
- If the mower stalls or the turbo blower chute plugs, disengage the electric clutch (PTO), stop the engine and remove the key, set the parking brake, wait for moving parts to stop. Remove the foreign object or clear the chute with a piece of wood before restarting the engine. Never place hands into blower housing to clear jammed object. Blower may rotate when object is removed.
- For added tractor stability and to prevent tipping or loss of control:
 - a. Use reduced speed on uneven ground and when turning corners.
 - b. Reduce loads on hillsides. It is recommended that the collection system be kept only half full when negotiating any slopes. Start mowing on slopes when the collection system is empty.
 - c. Mow up and down the face of slopes; never across the face of any slope.
- When operating on slopes, use front counterweight. Never operate on slopes greater than 30% (16.7°).
- Know the tractor controls and how to stop quickly. **READ THE TRACTOR OPERATOR'S MANUAL.**
- Disengage the electric clutch (PTO). Shut off the engine and wait for all moving parts to stop before attaching, adjusting, or disconnecting any part of the collection system.
- Check the collection system to make sure it is bolted tightly to the tractor.
- Look behind to make sure the area is clear before backing up.
- **DO NOT** turn sharply when travelling alongside a building or any object.
- **DO NOT** carry passengers on the tractor.
- Read and obey all warning decals.

SAFETY DECALS



WARNING

Read and obey all operation and warning decals.



OPERATION

Operation With Turbo & Cart

- Grass should be cut often, and not too short. If grass is too long or lush, it may be necessary to keep ground speed to a minimum or to cut only half the width to prevent clogging. If grass is too high, operate with mower in high cutting position. Cut the grass again in lower cutting position, if desired.
- Before mowing, clear the lawn of all sticks, stones, wire and other debris which may be caught or thrown by the mower blades.
- The turbo blower housing should be removed for cleaning. If a large amount of cut grass is spilling out from under the deck, the tube may be plugged or grass bags are full. Shut off tractor, disengage the PTO and allow all moving parts to stop before disconnecting the tube.
- Always operate at full throttle to maximize mowing and bagging performance.

Operation Without Turbo

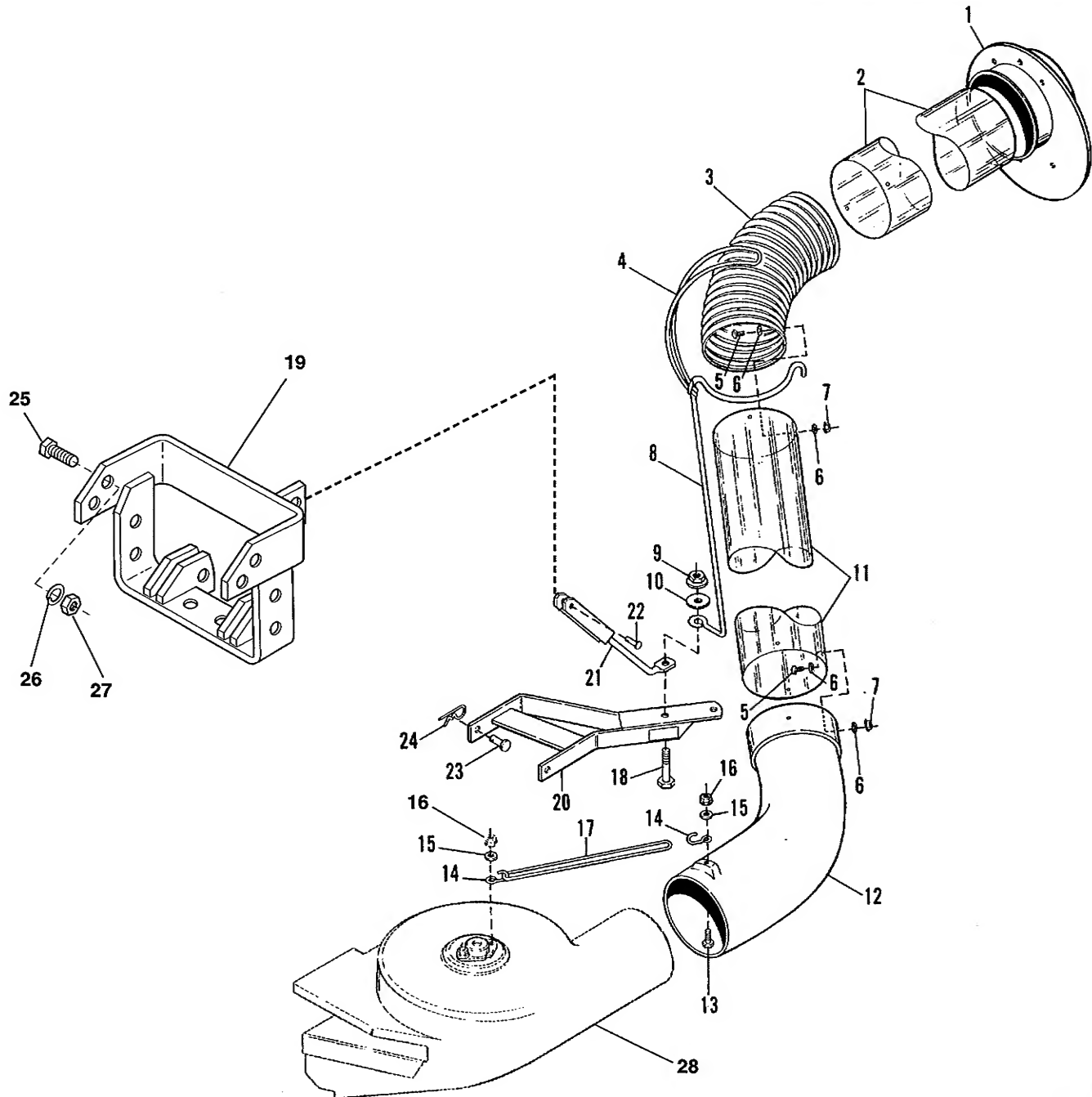
- For operation without the turbo, the deflector must be properly installed in the down position and retained by the spring latch.
- To remove turbo, see turbo operator's manual.

Recommended Accessories

- Front counterweight is recommended when using rear-mounted grass catcher.
- On slopes over 15% (8.5°), use two rear wheel weights in addition to front counterweight.

Always mow up and down the face of slopes, never across the face. Never mow on slopes greater than 30% (16.7 degrees)

Exploded View Diagram



Ref. Qty. Description

1	1	Cart Connector
2	1	Tube
3	1	Hose
4	1	Strap
5	12	Truss Head Screws, #10-32x1/2"
6	24	Plain Washers
7	12	Hex Nut, #10-24
8	1	Support Tube
9	1	Flange Hex Nut, 1/2-13

Ref. Qty. Description

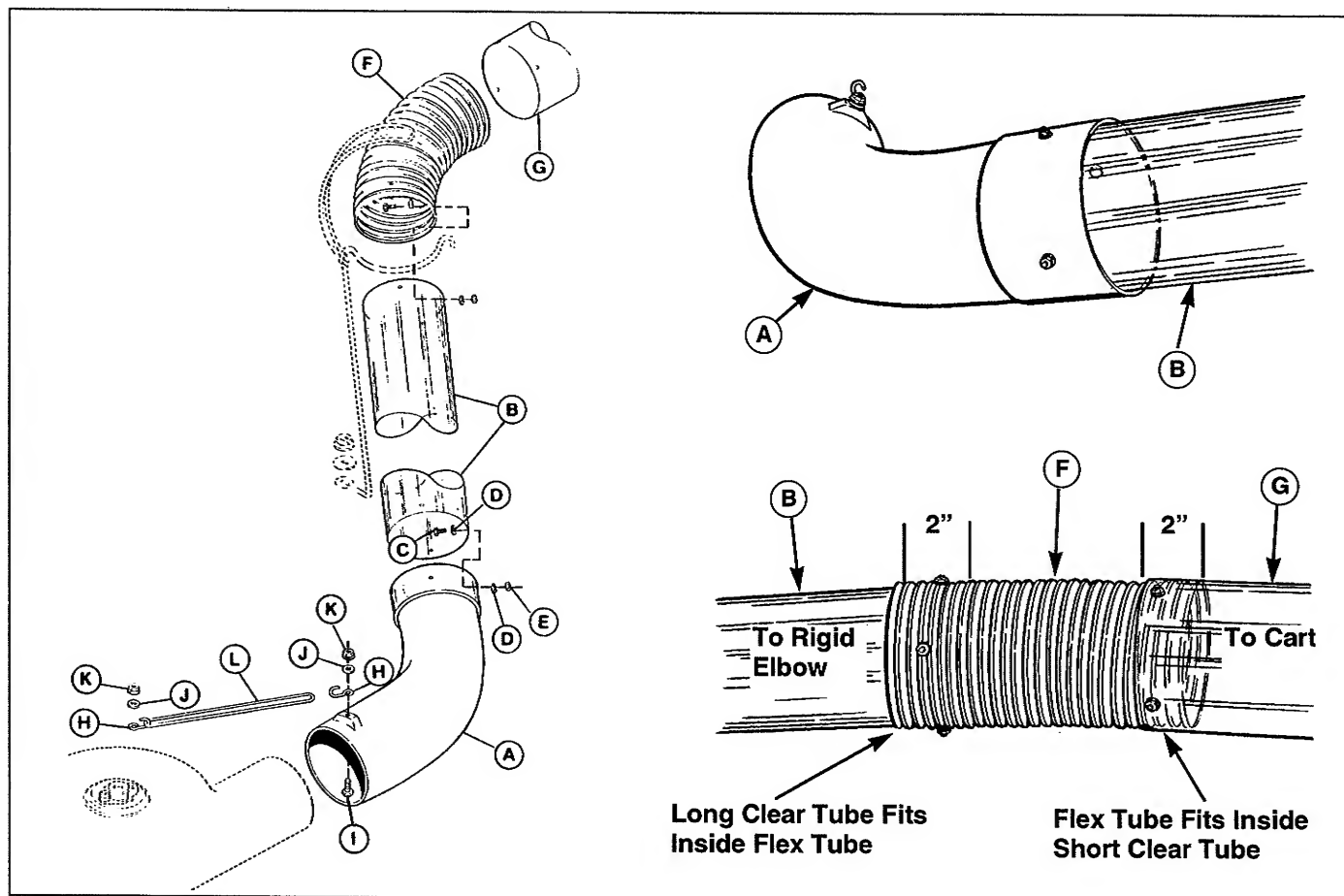
10	1	Washer
11	1	Tube Assembly
12	1	Elbow
13	1	Capscrew, 5/16-5/6x16
14	2	Hook
15	2	Plain Washer
16	1	Flange Lock Nut, 5/16
17	1	Rubber Strap
18	1	Capscrew, 1/2-13x2"
19	1	Hitch

Ref. Qty. Description

20	1	Drawbar Assembly
21	1	Support Assembly
22	1	Round Head Pin
23	2	Yolk Pin
24	3	Spring Clip
25	6	Capscrew, 1/2-13x1-1/4"
26	6	Lockwasher, 1/2"
27	6	Hex Nut, 1/2"
28	1	Tubro Assembly (Purchased Separately)

Figure 1. Turbo Assembly

Initial Installation & Assembly



INITIAL INSTALLATION & ASSEMBLY

Assemble Discharge Tubes

See Figure 2.

1. Assemble the hooks (H) to the rigid elbow (A) using a capscrew (I), washer (J), and flange nut (K).
2. Locate the four holes 2" in from the end of the long clear tube (B). Insert this end of the long clear tube (B) into the rigid elbow (A).
3. Attach the long clear tube (B) to the rigid elbow (A) using truss head screws (C), washers (D), and locknuts (E).
4. Pull the flex hose (F) over the outside of the long clear tube. Overlap by 2".
5. Locate the four holes in the long clear tube. Using the clear tube as a guide, punch four holes in the flex tube.
6. Secure the flex tube to the long clear tube (B) using truss head screws (C), washers (D), and locknuts (E).
7. Insert the other end of the flex tube (F) inside the short clear tube (G). Insert the flex tube two inches in.
8. Using the short clear tube (G) as a guide, punch four bolt holes in the flex tube (F).
9. Secure the flex tube to the clear tube using truss head screws (C), washers (D), and locknuts (E).

Figure 2. Tube Assembly

Ref.	Qty.
A. Rigid Elbow	1
B. Clear Tube, Long	1
C. Screw, Truss Head 10-32 x 1/2	4
D. Washer, Flat	8
E. Locknut, 10-32	4
F. Flex Hose (Hardware - C, D, E)	1
G. Clear Tube, Short (Hardware - C, D, E)	1
H. Hooks	2
I. Capscrew, 5/16-18 x 1/2	1
J. Washer, 5/16	1
K. Flange Nut, 5/16-18	1
L. Strap	1

Initial Installation & Assemble

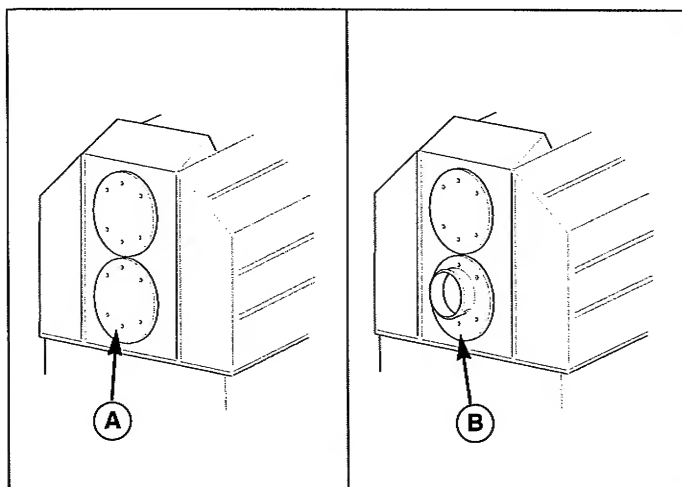


Figure 3. Install Adapter Plate

A. Cover Plate

B. Adapter Plate

Install Adapter Plate

1. Remove the cover plate (A, Figure 3) from the lower opening of the front of the cart.
2. Install the adapter plate (B, Figure 3) in the lower opening of the cart. Secure with using the hardware removed in step 1.

Install Hitch

1. Remove the rear bumper.
2. Rest the hitch (D, Figure 4) on the drawbar (A).
3. Attach the hitch (D) to the tractor drawbar (A) and channel frame (C) using six 1/2"-13 x 1-1/4" cap-screws, lockwashers, and nuts (B) as shown in Figure 4.

Assemble Hitch

1. See Figure 5. Assemble the drawbar support (D), drawbar (A), and tube support using a capscrew (E), washer (G), and nut (H) as shown.

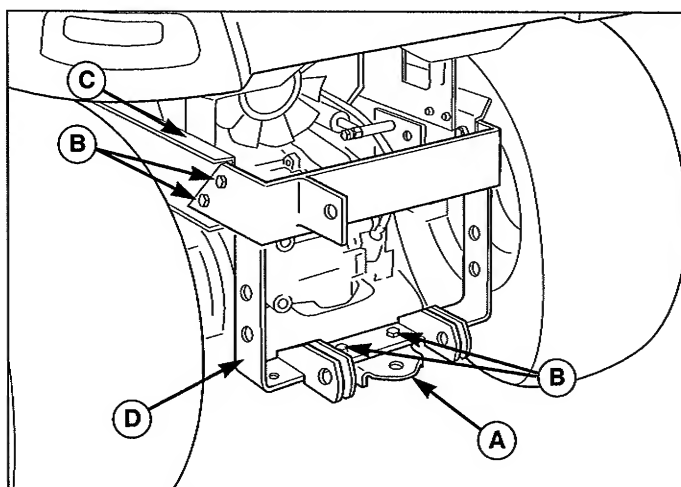


Figure 4. Install Hitch

A. Tractor Drawbar

B. 1/2"-13 x 1-1/4" Capscrew, Lockwasher, & Nut

C. Channel Frame

D. Hitch

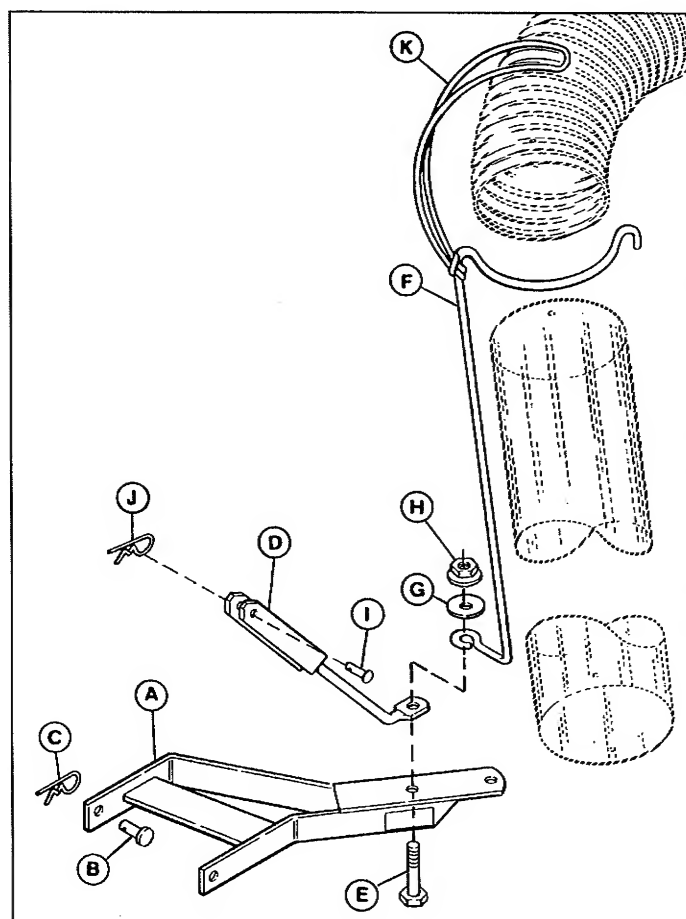


Figure 5. Drawbar & Supports

Ref.	Qty.
A. Drawbar	1
B. Clevis Pin	2
C. Spring Clip	2
D. Drawbar Support	1
E. Capscrew, 1/2-13 x 2	1
F. Tube Support	1
G. Flat Washer (1-1/4 O.D.)	1
H. Flange Nut (1/2-13)	1
I. Round Head Pin	1
J. Spring Clip	1
K. Strap	1

Normal Installation & Removal

NORMAL INSTALLATION

Attach Drawbar Hitch

1. Attach the drawbar hitch (A, Figure 6) to the tractor hitch (B) using three clevis pins (C) and safety clips.

Connect Tube

1. Connect the rigid elbow (A, Figure 7) to the turbo and secure with a rubber strap (B).
2. Secure the flex tube (A, Figure 8) to the tube support (B) using a rubber strap (C).
3. Insert the tube (A, Figure 9) into the adapter plate (B).

REMOVAL

1. Remove the short clear tube (A, Figure 9) from the adapter plate (B).
2. Remove the rubber strap (C, Figure 8) securing the flex tube (A) to the tube support (B).
3. Disconnect the rigid elbow (A, Figure 7) from the turbo.
4. Remove the three clevis pins and safety clips (C, Figure 6) securing drawbar hitch (A) to the tractor hitch (B) and remove the drawbar hitch (A).

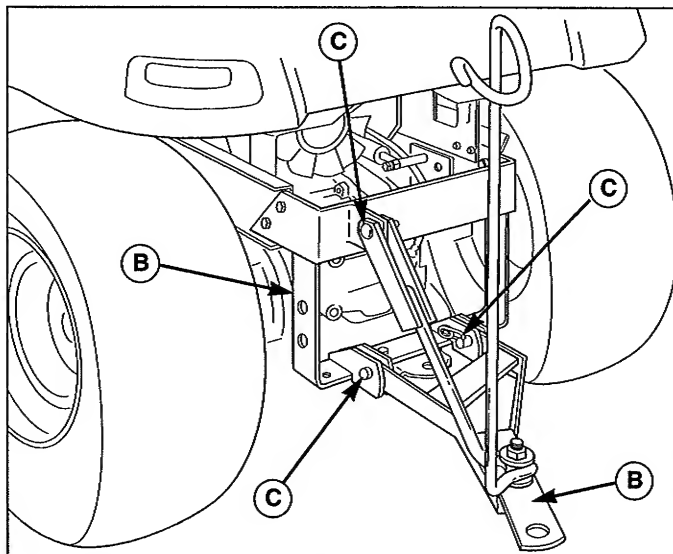


Figure 6. Attach Drawbar Hitch
A. Drawbar Hitch
B. Tractor Hitch
C. Clevis Pin & Safety Clip

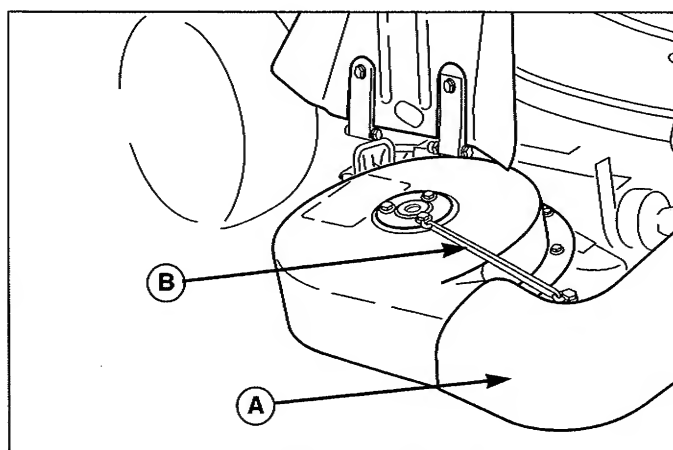


Figure 7. Connect Elbow to Turbo
A. Rigid Elbow
B. Rubber Strap

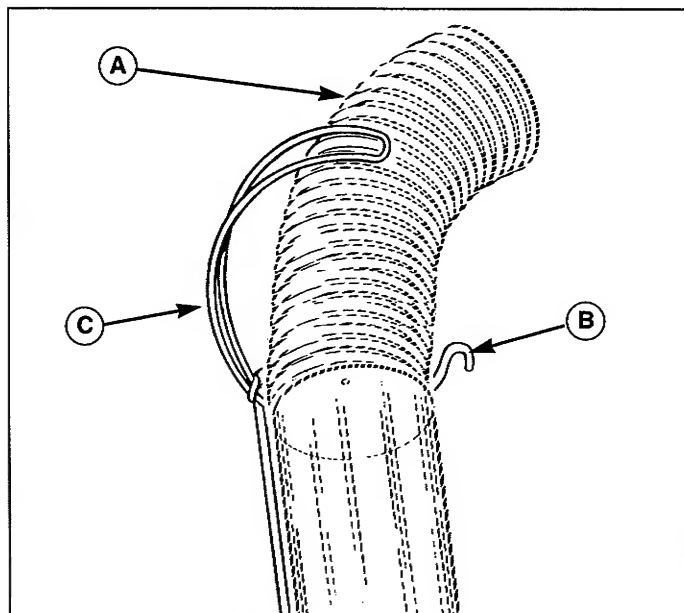


Figure 8. Secure Tube
A. Flex Tube
B. Tube Support
C. Rubber Strap

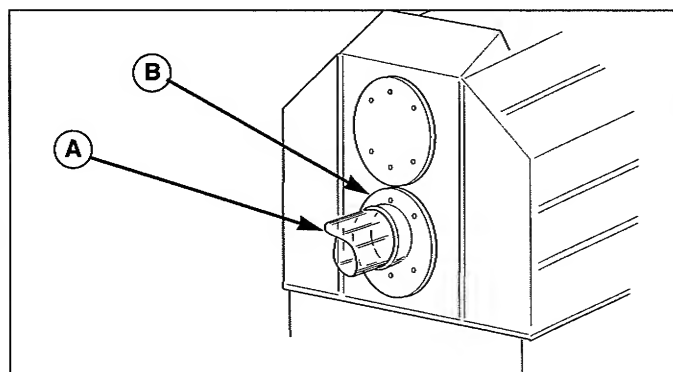


Figure 9. Connect to Adapter Plate
A. Tube
B. Adapter Plate

OPERATION

Before Operation

Clear the lawn of all sticks, stones, wire and other debris which may be caught or thrown by the mower blades.

Clean the bagger with mild detergent (other products may damage tube).

Check grass condition. If the grass is wet, plugging may occur: wait until later in the day.

For efficient bagging, air circulation under the mower deck, through the chute and into the bag is very important. For this reason, you should remove grass and debris from underside of mower deck and discharge, and from the underside of the bagger lid. The lid screen should be cleaned regularly.

The blower housing and tube should be removed for cleaning. Remove the tube by unlatching the lower tube rubber band from blower housing.

If desired, the bags can be lined with 30 gallon trash bags for easy disposal.

Inspect the grass bags for wear or damage. Make sure that there is a snug fit between mower deck, blower housing, tubes, and grass catcher cover.

WARNING

Do not remove any part of the collection system while the tractor is running.

Remove grass and other debris only after the tractor has been shut off, the key removed, parking brake set, and all moving parts have stopped.

WARNING

For operation on slopes greater than 15% (8.5°), wheel weights are recommended. Never operate on slopes greater than 30% (16.7°).

CAUTION

The cart weight limit is 400 lbs.

Operation

Grass should be cut often, and not too short. If grass is too long or lush it may be necessary to keep ground speed to a minimum or to cut only half the width to prevent clogging. If grass is high, operate with mower in high cutting position. Cut the grass again in lower cutting position, if desired.

To check if grass is flowing up tube, view tube. Do not open cover with mower engaged.

If a large amount of cut grass is spilling out from under deck, the tube may be plugged or cart is full. Shut off tractor, disengage PTO, and allow all moving parts to stop before disconnecting tube.

Always operate with throttle at full speed.

Operation Without Turbo

For operation without turbo, the deflector must be properly installed in the down position and retained by spring latch (see turbo operator's manual).

Storage

1. Clean the grass catcher thoroughly. See the instructions supplied with your grass catcher for full storage and maintenance instructions.
2. If paint has been scratched on metal parts, coat with paint or oil.
3. Store in a dry area. Hang the catcher to dry. Always store away from moisture.

Hardware Identification & Torque Specifications

Common Hardware Types

Hex Head Capscrew



Washer



Carriage Bolt



Lockwasher



Hex Nut

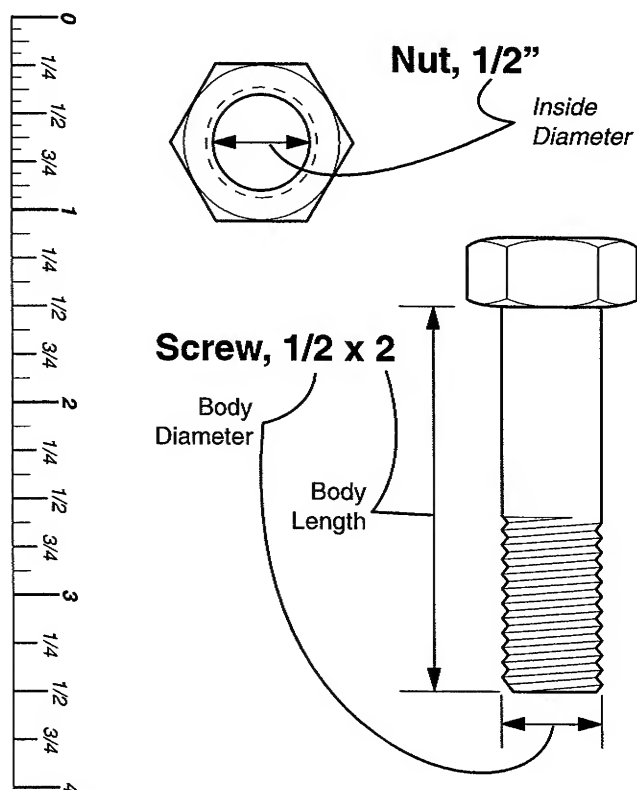


Standard Hardware Sizing

When a washer or nut is identified as **1/2"**, this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch; if a second number is present it represents the *threads per inch*

When bolt or capscrew is identified as **1/2 - 16 x 2"**, this means the *Nominal size*, or *body diameter* is 1/2 inch; the second number represents the *threads per inch* (16 in this example, and the final number is the *body length* of the bolt or screw (in this example 2 inches long).

The guides and ruler furnished below are designed to help you select the appropriate hardware and tools.



Torque Specification Chart

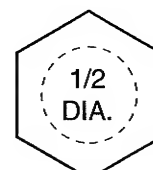
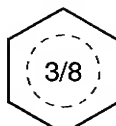
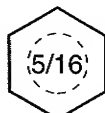
FOR STANDARD MACHINE HARDWARE (Tolerance $\pm 20\%$)

Hardware Grade	No Marks SAE Grade 2		SAE Grade 5		SAE Grade 8	
	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	27	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - for prevailing torque locknuts - use 65% of grade 5 torques.
 - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

Wrench & Fastener Size Guide





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